

## Koch, Kristine

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**From:** James McKenna <jim.mckenna@verdantllc.com>  
**Sent:** Wednesday, January 07, 2015 9:02 AM  
**To:** Koch, Kristine; Bob Wyatt (rjw@nwnatural.com)  
**Cc:** Jennifer Woronets  
**Subject:** RE: dioxin/furan metabolic rates for the FWM

Kristine,

Bob and I are in a meeting this morning so I will connect with John Toll afterwards about your request. At first blush I do not see an issue with getting you the references by the end of this month. I provide a more definitive answer after I talk with John. Thanks, Jim.

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**From:** Koch, Kristine [Koch.Kristine@epa.gov]  
**Sent:** Wednesday, January 07, 2015 8:15 AM  
**To:** James McKenna; Bob Wyatt (rjw@nwnatural.com)  
**Cc:** Jennifer Woronets  
**Subject:** FW: dioxin/furan metabolic rates for the FWM

Jim and Bob – Can you please provide the references for all the values provided by Windward Environmental below by COB January 30.

Thanks,

Kristine Koch  
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USEPA, Office of Environmental Cleanup

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**From:** Allen, Elizabeth  
**Sent:** Wednesday, January 07, 2015 8:12 AM  
**To:** Koch, Kristine  
**Subject:** FW: dioxin/furan metabolic rates for the FWM

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**From:** Allen, Elizabeth  
**Sent:** Friday, November 14, 2014 1:51 PM  
**To:** 'Suzanne Replinger'  
**Cc:** John Toll; Koch, Kristine; 'James McKenna'; 'Jennifer Woronets'  
**Subject:** RE: dioxin/furan metabolic rates for the FWM

Thanks Suzanne! This also shows my initial guess that the Km values for the penta dioxin and furan would be the same was incorrect. I think at some point we'll need to be able to cite references for all these values, but that isn't time-critical.

Elizabeth

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**From:** Suzanne Replinger [<mailto:SuzanneR@windwardenv.com>]  
**Sent:** Friday, November 14, 2014 1:45 PM  
**To:** Allen, Elizabeth  
**Cc:** John Toll  
**Subject:** dioxin/furan metabolic rates for the FWM

Hi Elizabeth –

To follow up from our conversation a bit ago, invertebrate KMs were assumed to be 0 in the August 2014 work we did modeling the dioxin/furan congeners. The table below shows the invertebrate and fish KM values. Note that 2,3,4,7,8-PentaCDF was calibrated as part of the 2009 report, so we had a non-zero value for invertebrates for that chemical. The only other wrinkle was that based on the available literature, we selected a different KM for carp for 2378-TCDD (as shown in the table below.

Dioxin/furan	Invertebrate K <sub>M</sub>	Fish K <sub>M</sub>
1,2,3,4,7,8-HexaCDF	0	0.02
1,2,3,6,7,8-HexaCDD	0	0.08
1,2,3,7,8-PentaCDD	0	0.01
2,3,4,7,8-PentaCDF	0.095	0.024
2,3,7,8-TetraCDF	0	0.1
2,3,7,8-TetraCDD	0	0.007 (Carp = 0.0016)

Let us know if you have any questions.

Thanks

Suzanne

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